At this point, I yield the floor.

The PRESIDING OFFICER. The Senator from Virginia.

Mr. WARNER. Mr. President, is the parliamentary situation such that the Senator from Virginia can make a unanimous consent request on a matter not related to the bill?

The PRESIDING OFFICER. Yes.

COMPREHENSIVE TEST BAN TREATY

Mr. WARNER. Mr. President, I rise to address the issue of the Comprehensive Nuclear Test Ban Treaty and to apprise the Senate of information presented at hearings of the Armed Services Committee over the last two days. The committee today conducted the second of its series of three hearings this week on the CTBT.

Yesterday morning, the Armed Services Committee heard classified testimony from career professionals, technical experts with decades of experience, from the Department of Energy laboratories and the CIA. At that hearing, the committee received new information having to do with the Russian nuclear stockpile, our ability to verify compliance with the CTBT, as well as DOE lab assessments of the U.S. nuclear stockpile. Much of what the committee heard during that hearing was new information—information developed over the past 18 months—and therefore was not available to the Congress and the President when the CTBT was signed in 1996. Since 1997, when the intelligence community released its last estimate on our ability to monitor the CTBT, new information has led the intelligence community—on its own initiative—to conclude that a new, updated estimate is needed. I have been informed that this new estimate will be completed late this year or early next year.

This morning, the Armed Services Committee heard from the Secretary of Defense, William Cohen, and the Chairman of the Joint Chiefs of Staff, General Shelton. This afternoon, we heard from Dr. James Schlesinger, former Secretary of Defense and Energy and former Director of Central Intelligence, and General Shalikashvili, former Chairman of the JCS. Their testimony is available on the Committee's web page.

In today's hearing, I highlighted my serious concerns with the CTBT in three areas:

1. We will not be able to adequately and confidently verify compliance with the treaty.

2. CTBT will preclude the United States from taking needed measures to ensure the safety and reliability of our stockpile.

3. The administration has overstated the effectiveness of the CTBT in lessening proliferation.

Regarding the safety of the U.S. nuclear stockpile, today's witnesses highlighted the fact that only half of the nuclear weapons in the U.S. stockpile today have all the modern safety features that have been developed and should be included on these weapon systems. We will not be able to retrofit these safety features in our weapons in the absence of nuclear testing. These are weapons that are stored at various locations around the world; weapons that rest in missile tubes literally feet away from the bunks of our submarine crews; weapons that are regularly moved across roads and through airfields around the world.

Regarding the reliability of the U.S. nuclear stockpile, Secretary Cohen and General Shelton acknowledged that it could be ten years or more before we will know whether the Stockpile Stewardship Program—computer simulation tools—needed to replace nuclear testing will work. Secretary Schlesinger clarified that, if we substitute computer simulation for actual nuclear testing, the most we can hope for is that these computer tools will slow the decline—due to aging—in our confidence in the stockpile. Will we ever be able to replace nuclear testing?

Regarding proliferation, Secretary Schlesinger highlighted the fact that the diminishing confidence in our stockpile, which is inevitable if we were to ratify CTBT, may actually drive some non-nuclear countries to reconsider their need to develop nuclear weapons to compensate for the diminished credibility of the U.S. deterrent force. This declining confidence in the U.S. stockpile is a fact of science that has been progressing since the United States stopped nuclear testing in 1992. Our nuclear weapons are experiencing the natural consequences of aging. Dr. Schlesinger stated it clearly when he asked: ''Do we want a world that lacks confidence in the U.S. deterrent or not?''

Regarding verification, this morning Secretary Cohen confirmed that the United States will not be able to detect low yield nuclear testing which can be carried out in violation of the treaty. In addition, we exposed the fallacy of the administration's claim that CTBT will provide us with important on-site inspection rights. We would need to get the approval of 30 nations before we could conduct any on-site inspections. That will be very difficult, to say the least.

Although I believe all of our witnesses have conducted themselves very professionally, I heard nothing at either of our hearings that changes my view of the CTBT. I am deeply concerned that the administration is overselling the benefits of this treaty while downplaying its many adverse long-term consequences.

My bottom line is this: reasonable people can disagree on the impact of the CTBT for U.S. national security. As long as there is a reasonable doubt about whether the CTBT is in the U.S. national interest, then we should not ratify it.

Mr. President, tomorrow morning the Armed Services Committee will conduct the third of its CTBT hearings. We will hear from the DOE lab directors and others responsible for overseeing the stockpile. We will also hear from former officials and other technical experts with years of experience in developing, testing and maintaining our nuclear weapons.

I ask unanimous consent to have printed in the RECORD material presented at today's hearing, including a letter to me dated October 5, 1999, from former Chairman of the JCS, John W. Vessey, USA-Ret; a letter to the Senate leaders from six former Secretaries of Defense and a letter from other former Government officials.

There being no objection, the letters were ordered to be printed in the RECORD, as follows:

GARRISON, MN, *October 5, 1999.*

Hon. JOHN W. WARNER,
Chairman, Armed Services Committee,
United States Senate,
Washington, DC.

DEAR SENATOR WARNER: If the news reports are correct, the Armed Services Committee will be addressing the proposed Comprehensive Test Ban Treaty (CTBT) in the next few days. Although I will not be able to be in Washington during the hearings, I want you to have at least a synopsis of my views on the matter.

I believe that ratifying the treaty requiring a permanent zero-yield ban on all underground nuclear tests is not in the security interest of the United States.

From 1945 through the end of the Cold War, the United States was clearly the preeminent nuclear power in the world. During much of that time, the nuclear arsenal of the Soviet Union surpassed ours in numbers, but friends and allies, as well as potential enemies and other nations not necessarily friendly to the United States, all understood that we were the nation with the very modern, safe, secure, reliable, usable, nuclear deterrent force which provided the foundation for the security of our nation and for the security of our friends and allies, and much of the world. Periodic underground nuclear tests were an essential part of insuring that our nuclear deterrent force remained modern, safe, secure, reliable and usable. The general knowledge that the United States would do whatever was necessary to maintain that condition certainly reduced the proliferation of nuclear weapons during the period and added immeasurably to the security cooperation with our friends and allies.

Times have changed; the Soviet Union no longer exists; however, much of its nuclear arsenal remains in the hands of Russia. We have seen enormous political, economic, social and technological changes in the world since the end of the Cold War, and the these changes have altered the security situation and future security requirements for the United States. One thing has not changed. Nuclear weapons continue to be with us. I do not believe that God will permit us to ''uninvent'' nuclear weapons. Some nation, or power, will be the preeminent nuclear power in the world, and I, for one, believe that at least under present and foreseeable conditions, the world will be safer if that

power is the United States of America. We jeopardize maintaining that condition by eschewing the development of new nuclear weapons and by ruling out testing if and when it is needed.

Supporters of the CTBT argue that it reduces the chances for nuclear proliferation. I applaud efforts to reduce the proliferation of nuclear weapons, but I do not believe that the test ban will reduce the ability of rogue states to acquire nuclear weapons in sufficient quantities to upset regional security in various parts of the world. ''Gun type'' nuclear weapons can be built with assurance they'll work without testing. The Indian and Pakistani ''tests'' apparently show that there is adequate knowledge available to build implosion type weapons with reasonable assurance that they will work. The Indian/Pakistan explosions have been called ''tests'', but I believe it be more accurate to call them ''demonstrations'', more for political purposes than for scientific testing.

Technological advances of recent years, particularly the great increase in computing power coupled with improvements in modeling and simulation have undoubtedly reduced greatly the need for active nuclear testing and probably the size of any needed tests. Some would argue that this should be support for the United States agreeing to ban testing. The new technological advantages are available to everyone, and they probably help the ''proliferator'' more than the United States.

We have embarked on a ''stockpile stewardship program'' designed to use science, other than nuclear testing, to ensure that the present weapons in our nuclear deterrent remain safe, secure, and reliable. The estimates I've seen are that we will spend about $5 billion each year on that program. Over twenty years, if the program is completely successful, we will have spent about $100 billion, and we will have replaced nearly every single part in each of those complex weapons. At the end of that period, about the best that we will be able to say is that we have a stockpile of ''restored'' weapons of at least thirty-year-old design that are probably safe and secure and whose reliability is the best we can make without testing. We will not be able to say that the stockpile is modern, nor will we be assured that it is usable in the sense of fitting the security situation we will face twenty years hence. To me that seems to foretell a situation of increasing vulnerability for use and our friends and allies to threats from those who will not be deterred by the Nonproliferation Treaty or the CTBT, and there will surely be such states.

If the United States is to remain the preeminent nuclear power, and maintain a modern safe secure, reliable, and usable nuclear deterrent force, I believe we need to continue to develop new nuclear weapons designed to incorporate the latest in technology and to meet the changing security situation in the world. Changes in the threat, changes in intelligence and targeting, and great improvements in delivery precision and accuracy make the weapons we designed thirty years ago less and less applicable to our current and projected security situation. The United States, the one nation most of the world looks to for securing peace in the world, should not deny itself the opportunity to test the bedrock building block of its security, its nuclear deterrent force, if conditions require testing.

To those who would see in my words advocacy for a nuclear buildup or advocacy for large numbers of high-yield nuclear tests, let me say that I believe we can have a modern, safe, secure, reliable and usable nuclear deterrent force at much lower numbers than we now maintain. I believe we can keep it modern and reliable with very few actual nuclear tests and that those tests can in all likelihood be relatively low-yield tests. I also believe that the more demonstrably modern and usable is our nuclear deterrent force, the less likely are we to need to use it, but we must have modern weapons, and we ought not deny ourselves the opportunity to test if we deem it necessary.

Very respectfully yours,

JOHN W. VESSEY,
General, USA (Ret.), Former Chairman, Joint Chiefs of Staff.

Hon. TRENT LOTT,
Majority Leader,
U.S. Senate, Washington, DC.

Hon. TOM DASCHLE,
Democratic Leader,
U.S. Senate, Washington, DC.

DEAR SENATORS LOTT AND DASCHLE: As the Senate weighs whether to approve the Comprehensive Test Ban Treaty (CTBT), we believe Senators will be obliged to focus on one dominant, inescapable result were it to be ratified: over the decades ahead, confidence in the reliability of our nuclear weapons stockpile would inevitably decline, thereby reducing the credibility of America's nuclear deterrent. Unlike previous efforts at a CTBT, this Treaty is intended to be of unlimited duration, and though ''nuclear weapon test explosion'' is undefined in the Treaty, by America's unilateral declaration the accord is ''zero-yield,'' meaning that all nuclear tests, even of the lowest yield, are permanently prohibited.

The nuclear weapons in our nation's arsenal are sophisticated devices, whose thousands of components must function together with split-second timing and scant margin for error. A nuclear weapon contains radioactive material, which in itself decays, and also changes the properties of other materials within the weapon. Over time, the components of our weapons corrode and deteriorate, and we lack experience predicting the effects of such aging on the safety and reliability of the weapons. The shelf life of U.S. nuclear weapons was expected to be some 20 years. In the past, the constant process of replacement and testing of new designs gave some assurance that weapons in the arsenal would be both new and reliable. But under the CTBT, we would be vulnerable to the effects of aging because we could not test ''fixes'' of problems with existing warheads.

Remanufacturing components of existing weapons that have deteriorated also poses significant problems. Manufacturers go out of business, materials and production processes change, certain chemicals previously used in production are now forbidden under new environmental regulations, and so on. It is a certainty that new processes and materials—untested—will be used. Even more important, ultimately the nuclear ''pits'' will need to be replaced—and we will not be able to test those replacements. The upshot is that new defects may be introduced into the stockpile through remanufacture, and without testing we can never be certain that these replacement components will work as their predecessors did.

Another implication of a CTBT of unlimited duration is that over time we would gradually lose our pool of knowledgeable people with experience in nuclear weapons design and testing. Consider what would occur if the United States halted nuclear testing for 30 years. We would then be dependent on the judgment of personnel with no personal experience either in designing or testing nuclear weapons. In place of a learning curve, we would experience an extended unlearning curve.

Furthermore, major gaps exist in our scientific understanding of nuclear explosives. As President Bush noted in a report to Congress in January 1993, ''Of all U.S. nuclear weapons designs fielded since 1958, approximately one-third have required nuclear testing to resolve problems arising after deployment.'' We were discovering defects in our arsenal up until the moment when the current moratorium on U.S. testing was imposed in 1992. While we have uncovered similar defects since 1992, which in the past would have led to testing, in the absence of testing, we are not able to test whether the ''fixes'' indeed work.

Indeed, the history of maintaining complex military hardware without testing demonstrates the pitfalls of such an approach. Prior to World War II, the Navy's torpedoes had not been adequately tested because of insufficient funds. It took nearly two years of war before we fully solved the problems that caused our torpedoes to routinely pass harmlessly under the target or to fail to explode on contact. For example, at the Battle of Midway, the U.S. launched 47 torpedo aircraft, without damaging a single Japanese ship. If not for our dive bombers, the U.S. would have lost the crucial naval battle of the Pacific war.

The Department of Energy has structured a program of experiments and computer simulations called the Stockpile Stewardship Program, that it hopes will allow our weapons to be maintained without testing. This program, which will not be mature for at least 10 years, will improve our scientific understanding of nuclear weapons and would likely mitigate the decline in our confidence in the safety and reliability of our arsenal. We will never know whether we should trust Stockpile Stewardship if we cannot conduct nuclear tests to calibrate the unproven new techniques. Mitigation is, of course, not the same as prevention. Over the decades, the erosion of confidence inevitably would be substantial.

The decline in confidence in our nuclear deterrent is particularly troublesome in light of the unique geopolitical role of the United States. The U.S. has a far-reaching foreign policy agenda and our forces are stationed around the globe. In addition, we have pledged to hold a nuclear umbrella over our NATO allies and Japan Though we have abandoned chemical and biological weapons, we have threatened to retaliate with nuclear weapons to such an attack. In the Gulf War, such a threat was apparently sufficient to deter Iraq from using chemical weapons against American troops.

We also do not believe the CTBT will do much to prevent the spread of nuclear weapons. The motivation of rogue nations like North Korea and Iraq to acquire nuclear weapons will not be affected by whether the U.S. tests. Similarly, the possession of nuclear weapons by nations like India, Pakistan, and Israel depends on the security environment in their region, not by whether or not the U.S. tests. IF confidence in the U.S. nuclear deterrent were to decline, countries that have relied on our protection could well feel compelled to seek nuclear capabilities of their own. Thus, ironically, the CTBT might cause additional nations to seek nuclear weapons.

Finally, it is impossible to verify a ban that extends to very low yields. The likelihood of cheating is high. ''Trust but verify''

should remain our guide. Tests with yields below 1 kiloton can both go undetected and be military useful to the testing state. Furthermore, a significantly larger explosion can go undetected—or be mistaken for a conventional explosion used for mining or an earthquake—if the test is ''decoupled.'' Decoupling involves conducting the test in a large underground cavity and has been shown to dampen an explosion's seismic signature by a factor of up to 70. The U.S. demonstrated this capability in 1966 in two tests conducted in salt domes at Chilton, Mississippi.

We believe that these considerations render a permanent, zero-yield Comprehensive Test Ban Treaty incompatible with the Nation's international commitments and vital security interests and believe it does not deserve the Senate's advice and consent. Accordingly, we respectfully urge you and your colleagues to preserve the right of this nation to conduct nuclear tests necessary to the future viability of our nuclear deterrent by rejecting approval of the present CTBT.

Respectfully,

JAMES R. SCHLESINGER.
FRANK C. CARLUCCI.
DONALD H. RUMSFELD.
RICHARD B. CHENEY.
CASPAR W. WEINBERGER.
MELVIN R. LAIRD.

WASHINGTON, DC,
October 5, 1999.

Hon. TRENT LOTT,
Majority Leader,
U.S. Senate, Washington, DC.

Hon. THOMAS A. DASCHLE,
Minority Leader,
U.S. Senate, Washington, DC.

DEAR SENATORS LOTT AND DASCHLE: The Senate is beginning hearings on the Comprehensive Test Ban Treaty (''CTBT''), looking to an October 12 vote on whether or not to ratify. We believe, however, that it is not in the national interest to vote on the Treaty, at least during the life of the present Congress.

The simple fact is that the Treaty will not enter into force any time soon, whether or not the United States ratifies it during the 106th Congress. This means that few, if any, of the benefits envisaged by the Treaty's advocates could be realized by Senate ratification now. At the same time, there could be real costs and risks to a broad range of national security interests—including our nonproliferation objectives—if Senate acts prematurely.

Ratification of the CTBT by the U.S. now will not result in the Treaty coming into force this fall, as anticipated at its signing. Given its objectives, the Treaty wisely requires that each of 44 specific countries must sign and ratify the document before it enters into force. Only 23 of those countries have done so thus far. So the Treaty is not coming into force any time soon, whether or not the U.S. ratifies. The U.S. should take advantage of this situation to delay consideration of ratification, without prejudice to eventual action on the Treaty. This would provide the opportunity to learn more about such issues as movement on the ratification process, technical progress in the Department of Energy's Stockpile Stewardship Program, the political consequences of the India/Pakistan detonations, changing Russian doctrine toward greater reliance on nuclear weapons, and continued Chinese development of a nuclear arsenal.

Supporters of the CTBT claim that it will make a major contribution to limiting the spread of nuclear weapons. This cannot be true if key countries of proliferation concern do not agree to accede to the Treaty. To date, several of these countries, including India, Pakistan, North Korea, Iran, Iraq, and Syria, have not signed and ratified the Treaty. Many of these countries may never join the CTBT regime, and ratification by the United States, early or late, is unlikely to have any impact on their decisions in this regard. For example, no serious person should believe that rogue nations like Iran or Iraq will give up their efforts to acquire nuclear weapons if only the United States signs the CTBT.

Our efforts to combat proliferation of weapons of mass destruction not only deserve but are receiving the highest national security priority. It is clear to any fair-minded observer that the United States has substantially reduced its reliance on nuclear weapons. The U.S. also has made or committed to dramatic reductions in the level of deployed nuclear forces. Nevertheless, for the foreseeable future, the United States must continue to rely on nuclear weapons to contribute to the deterrence of certain kinds of attacks on the United States, its friends, and allies. In addition, several countries depend on the U.S. nuclear deterrent for their security. A lack of confidence in that deterrent might itself result in the spread of nuclear weapons.

As a consequence, the United States must continue to ensure that its nuclear weapons remain safe, secure, and reliable. But the fact is that the scientific case simply has not been made that, over the long term, the United States can ensure the nuclear stockpile without nuclear testing. The United States is seeking to ensure the integrity of its nuclear deterrent through an ambitious effort called the Stockpile Stewardship Program. This program attempts to maintain adequate knowledge of nuclear weapons physics indirectly by computer modeling, simulation, and other experiments. We support this kind of scientific and analytic effort. But even with adequate funding—which is far from assured—the Stockpile Stewardship Program is not sufficiently mature to evaluate the extent to which it can be a suitable alternative to testing.

Given the absence of any pressing reason for early ratification, it is unwise to take actions now that constrain this or future Presidents' choices about how best to pursue our non-proliferation and other national security goals while maintaining the effectiveness and credibility of our nuclear deterrent. Accordingly, we urge you to reach an understanding with the President to suspend action on the CTBT, at least for the duration of the 106th Congress.

Sincerely,

BRENT SCOWCROFT.
HENRY A. KISSINGER.
JOHN DEUTCH.

MORNING BUSINESS

Mr. SPECTER. Mr. President, on behalf of the leader, I ask unanimous consent the Senate now proceed to a period of morning business with Senators permitted to speak for up to 5 minutes.

The PRESIDING OFFICER. Without objection, it is so ordered.

THE COMPREHENSIVE NUCLEAR TEST BAN TREATY

Mr. DORGAN. Mr. President, today I attended an event in the White House at which 31 nobel laureates, the Chairman of the Joint Chiefs of Staff, four previous chairmen of the Joint Chiefs of Staff, the Secretary of Defense, and the President, among many others, supported the ratification by the Senate of the Comprehensive Nuclear Test Ban Treaty.

The point was made in those presentations that this treaty is not about politics. It is not about political parties. It is about the issue of the proliferation or spread of nuclear weapons and whether the United States of America should ratify a treaty signed by the President and sent to the Senate over 700 days ago that calls for a ban on all further testing of nuclear weapons all around the world.

For some months, I have been coming to the floor of the Senate suggesting that after nearly 2 years we ought to be debating the question of whether this country should ratify the Comprehensive Nuclear Test Ban Treaty.

I have exhibited charts that have shown the Senate what has happened with respect to other treaties that have been sent to the Senate by various Presidents, how long it has taken for them to be considered, the conditions under which they were considered, and I have made the point that this treaty alone has languished for over 2 years without hearings and without discussion. Why? Because there are some in the Senate who oppose it and don't want it to be debated or voted upon.

There are small issues and big issues in the course of events in the Senate. We spent many hours over a period of days debating whether to change the name of Washington's National Airport. What a debate that was—whether to change the name of Washington National Airport. That was a small issue. It was proposed that former President Reagan's name be put on that airport. Some agreed, some disagreed. We had a vote, after a debate over a number of days. The naming of an airport, in my judgment, is a small issue.

An example of a big issue is whether we are going to do something as a country to stop the spread of nuclear weapons. Now a big issue comes to the floor of the Senate in the form of a request for ratification of a treaty called the Comprehensive Test Ban Treaty. It is not a new idea, not a new issue. It started with President Dwight Eisenhower believing we ought to exhibit the leadership to see if we could stop all the testing of nuclear weapons around the rest of the world. It has taken over 40 years. Actually, 7 years ago this country took unilateral action and said: We are going to stop testing. We, the United States, will no longer